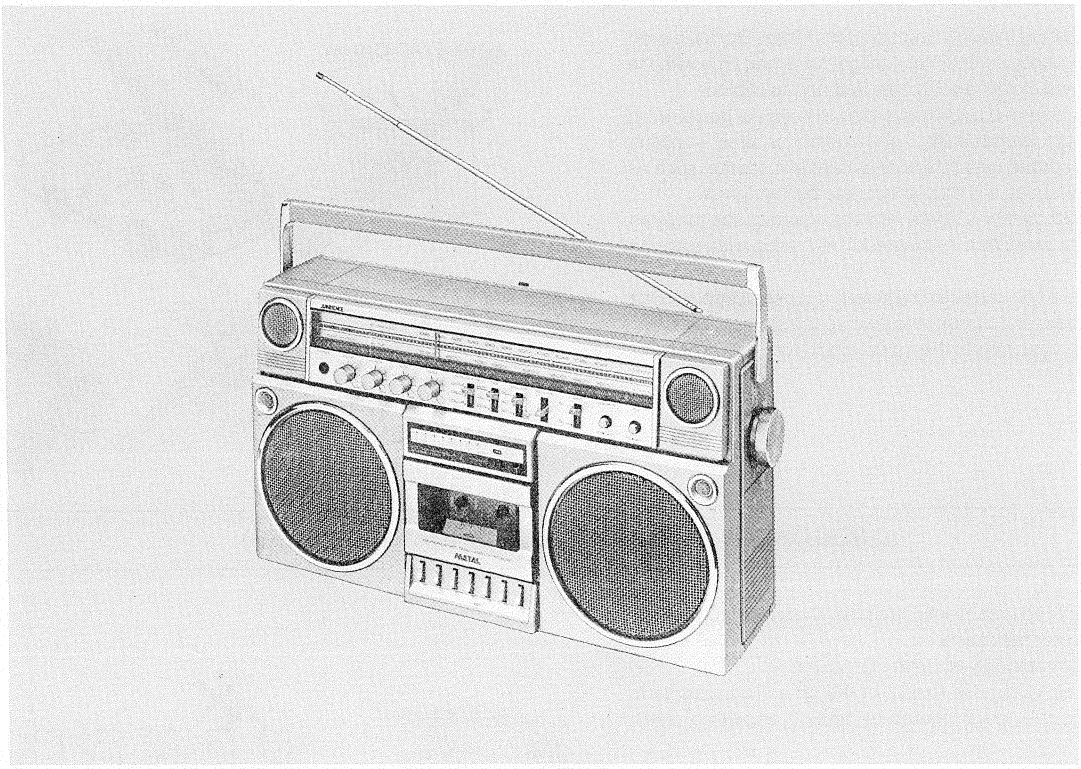
Operating Instructions

FM-AM-FM Stereo Radio Cassette Recorder

MODEL NO. RX-5150



Panasonic®

Read these instructions completely before operating this set.

Thank you for purchasing this Panasonic Radio Cassette Recorder. For optimum performance follow these operating instructions carefully.

WARNING:
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

CAUTION:
- **Voltage ranges 100–110 V, 200–220 V and 230–250 V are not for use in USA.**
- **Operation at a voltage setting higher than 125 V AC may require the use of a different AC plug. Please contact either a local or foreign Panasonic authorized servicenter for assistance in selecting an alternate plug adaptor.**

The serial number of this product may be found on the label affixed to the inside of the battery compartment.
You should note the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid in identification in the event of theft.

MODEL NUMBER: RX-5150

SERIAL NUMBER: _____

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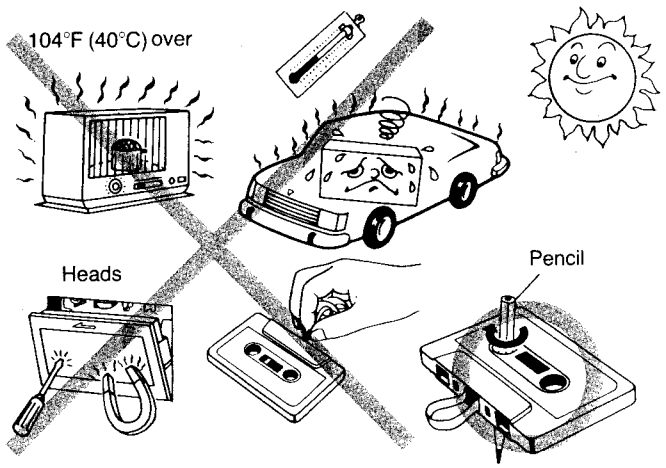
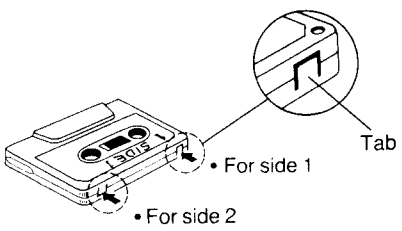
PRECAUTIONS

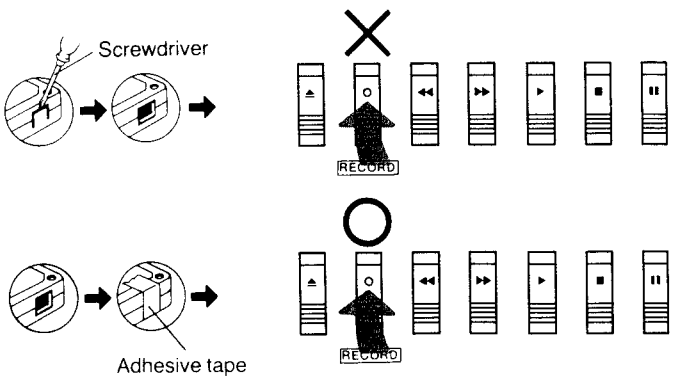
- Avoid using or placing this unit near sources of heat. Do not leave it in an automobile exposed to direct sunlight for a long time with the doors and windows closed as this may deform the cabinet.
- Cassettes, both recorded and unrecorded, should not be stored in locations with high temperature, high humidity or direct sunlight. Never place a recorded cassette near a magnetic source, such as a magnet or a TV set as this may affect tape performance.
- Avoid using C-120 cassette tapes with this unit because they can be easily broken, stretched or twisted if not used with extreme care.
- Tape looseness can be corrected by inserting a pencil through one of the cassette reels and turning it to take up the slack.
- When not in use, disconnect the power cord from the AC power outlet.



RECORD PREVENTION TABS (KNOCK-OUT TABS)

Cassettes are provided with plastic tabs (as illustrated) to prevent accidental erasing of a recording.
Recordings can be made only when the tab is intact.
There is one tab for each side (track) of the tape. To preserve a valuable recording, the tab(s) should be broken off with a small screwdriver.
If you want to record on a track whose tab has already been broken off, use adhesive tape to cover the hole, and record.

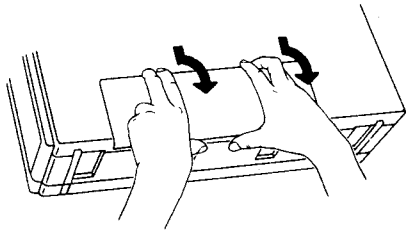




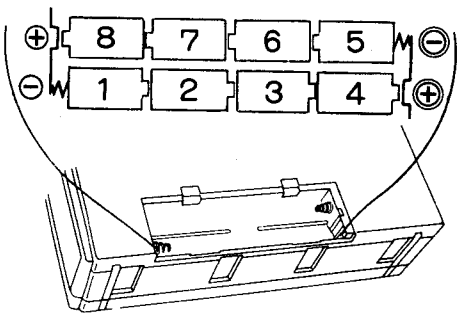
POWER SOURCE

■ Battery Operation:

1) Open the battery compartment cover as shown in the figure.



2) Insert 8 "D" size (Panasonic UM-1 or equivalent) batteries into the battery compartment, making sure that the batteries are installed in the specified numerical order and that the proper polarities are maintained.



3) Replace the compartment cover.

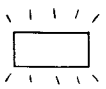
●Battery removal

When removing the batteries, press the ⊕ side of the number "8" battery toward the ⊖ side to remove them in the adverse order to the installing order.

> **Note:**
> To operate on battery power, unplug the AC power cord from the household AC power outlet and the AC Socket on the unit.

●Battery life

When the batteries are weak, the tape speed will slow down, the sound will become distorted, and the volume will decrease.
Set the Function Selector to "TAPE".
Depress the Playback Button. When the Power Indicator goes out or dims, it is time to replace all the batteries with new ones.


POWER

NORMAL

POWER

REPLACEMENT

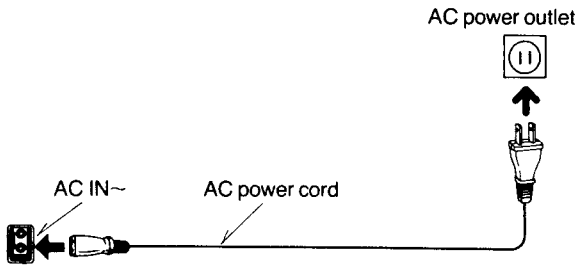
> **Note:**
> When the Function Selector or other controls are switched, the LED may light up. This does not indicate that anything is wrong with the set.

■ AC Power Operation

1) First, check the AC Voltage Selector to insure that it is set to the voltage which corresponds to your household AC voltage. If not, adjust by inserting a small screwdriver into the slot provided and turning the screwdriver until the desired voltage appears through the opening.

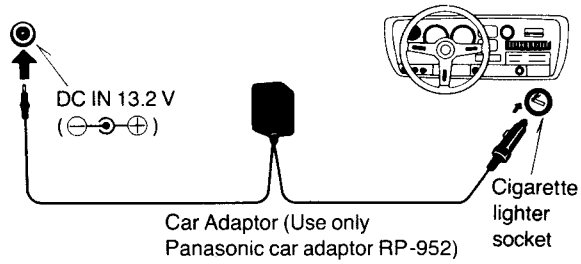
100—110V	115—127V	200—220V	230—250V

2) Connect the accessory AC power cord to the AC Socket in the unit and your household AC power outlet. Upon plugging the power cord into the AC Socket, the unit will automatically switch from battery to AC operation.



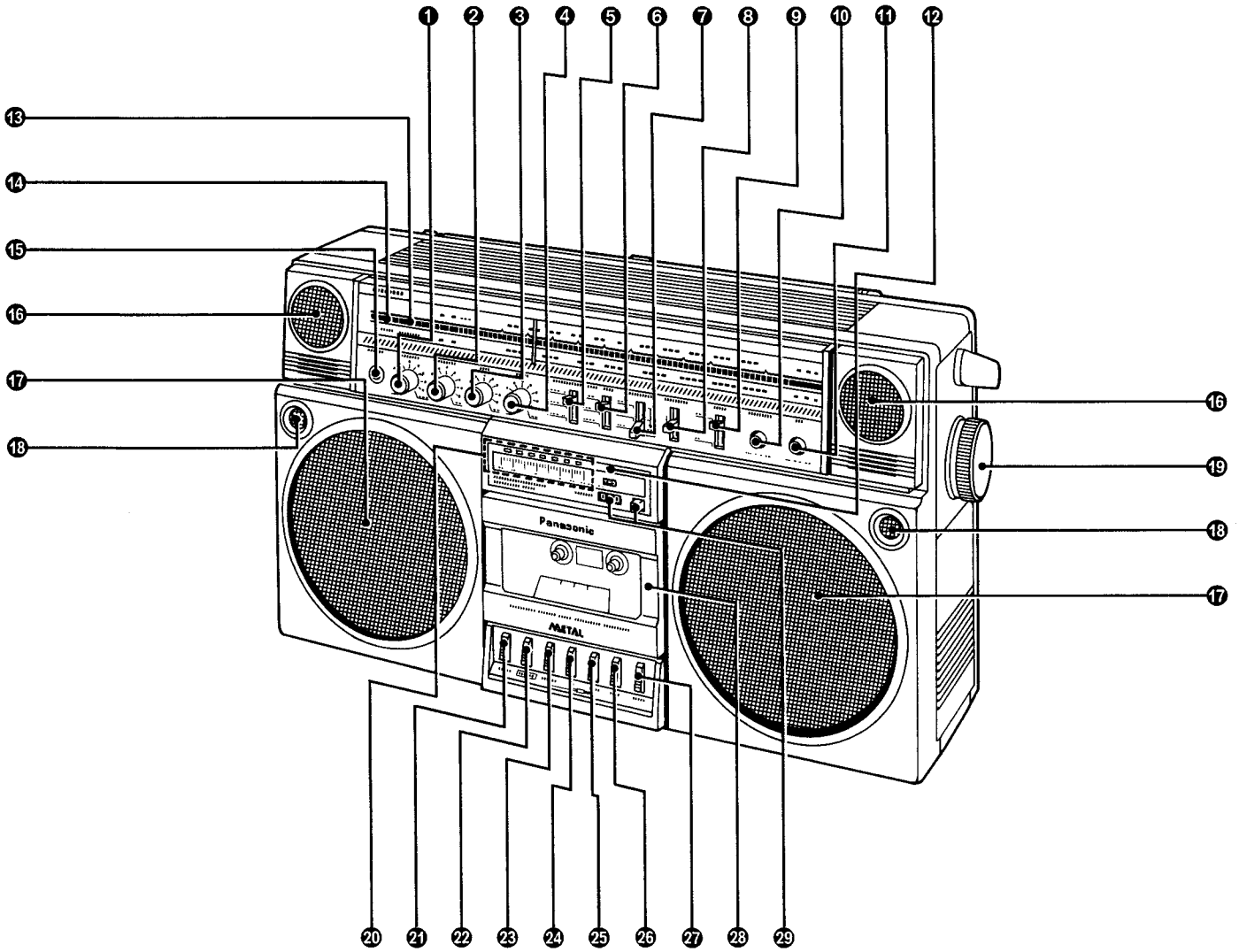
■ Car Battery Operation:

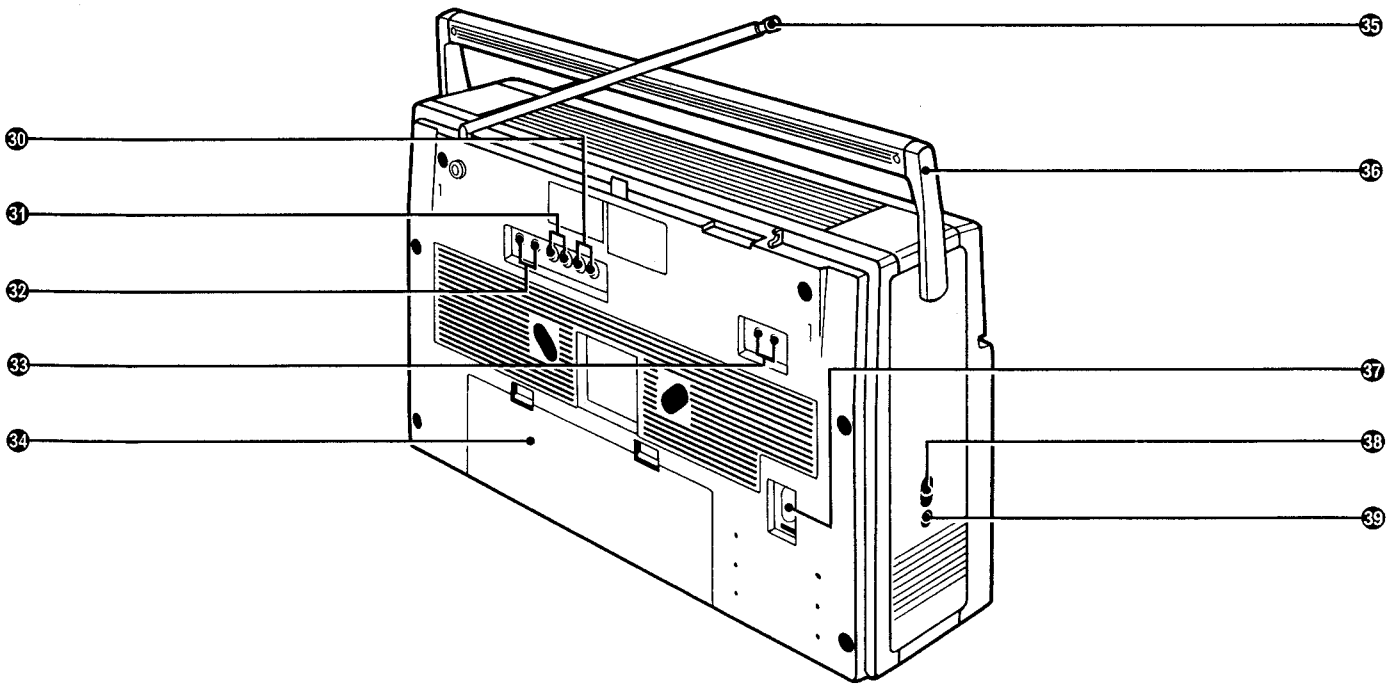
1) Insert the plug of the car battery adaptor cord into the DC Input Jack.
2) Plug the other end into the cigarette lighter socket in your car. Upon plugging the car battery adaptor cord in the DC Input Jack, the unit will automatically switch from internal battery to car battery operation.



> **Note:**
> For the connection of an adaptor cord, follow the instructions provided with it.

LOCATION OF CONTROLS





❶ Volume Control (VOLUME)
❷ Balance Control (BALANCE)
❸ Bass Control (BASS)
❹ Treble Control (TREBLE)
❺ Mode Selector/Beat Proof Switch (MODE/BEAT PROOF)
❻ Tape Selector (TAPE)
❼ Function Selector (SELECTOR)
❽ Record Muting Button (REC MUTE)
❾ Band Selector (BAND)
❿ Loudness Switch (LOUDNESS)
⓫ Tape Program Sensor (TPS) Switch
⓬ Tape Program Sensing (TPS) Indicator
⓭ FM Stereo Indicator (FM STEREO)
⓮ Power Indicator (POWER)
⓯ Headphones Jack (PHONES)
⓰ Tweeters (Treble Speakers)
⓱ Woofers (Bass Speakers)
⓲ Built-in Microphones (MIC)
⓳ Tuning Control (TUNING)
⓴ LED Meter (LEVEL)
㉑ Eject Button (▲ EJECT)
㉒ Record Button (○ RECORD)
㉓ Rewind Button (◀◀ REWIND)
㉔ Fast Forward Button (▶▶ FF)
㉕ Playback Button (▶ PLAY)
㉖ Stop Button (■ STOP)
㉗ Pause Button (❚❚ PAUSE)
㉘ Cassette Compartment
㉙ Tape Counter and Reset Button (COUNTER)
㉚ Line Output Jacks (LINE OUT)
㉛ Line Input Jacks (LINE IN)
㉜ Microphone Jacks (MIC)
㉝ External Speaker Jacks (EXT SP 3–8Ω)
㉞ Battery Compartment
㉟ Telescopic Antenna
㊱ Handle
㊲ Voltage Selector (VOLTAGE SELECTOR)
㊳ AC Socket (AC IN ~)
㊴ DC Input Jack (DC IN 13.2 V⊖-⊃-⊕)

LISTENING TO THE RADIO

1) Set the Function Selector to "RADIO".
2) Set the Band Selector to the desired radio band.
3) Set the Mode Selector to "AMBIENCE", "STEREO", or "MONO".
4) Set the Volume Control for the desired sound level.
5) Tune in your favorite station using the Tuning Control.
6) Adjust the Volume, Balance, Bass, and Treble Controls.
7) When listening to the radio at low volume, set the Loudness Switch to "ON". This will compensate for your ear's sensitivity to extreme low tones at low volume setting.
8) The radio can be turned off by setting the Function Selector to "POWER OFF".

■ FM AFC

The Automatic Frequency Control (AFC) locks the tuned station during FM and FM stereo reception. This assures additional stability without frequency "drift".

Notes:
- To receive FM stereo broadcasts, set the Mode Selector to "AMBIENCE" or "STEREO". The FM Stereo Indicator will light during stereo broadcasts.
- If FM stereo reception is poor (excessive noise, FM Stereo Indicator flickers), Set the Mode Selector to "MONO". This will reduce the noise and provide clear reception; however, the broadcast will not be heard in stereo.

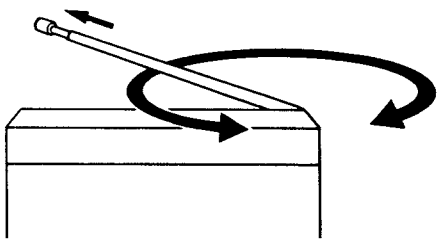
■ Ambience

The Ambience Sound System enhances the sound from a normal stereo sound source.
This unit increases the stereo imaging, thereby broadening the listening area of the stereo sound. Therefore, you can enjoy the stereo sound as if you were in a concert hall.

Antennas:

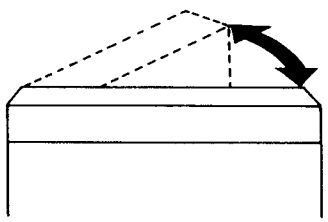
FM:

- Pull out the Telescopic Antenna and adjust its length and angle for optimum reception.



AM:

- The sensitive ferrite core antenna inside the set will provide excellent AM reception in most areas. For optimum reception, turn the set in the direction which gives the best results since the ferrite core antenna is directional.

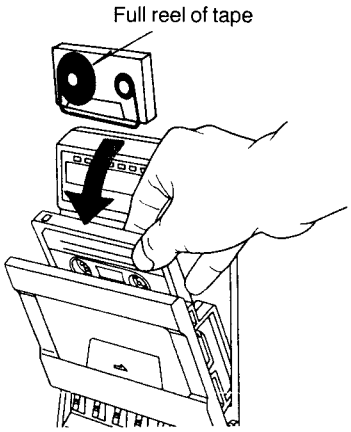


■ LED Meter

The LED Meter lights up to indicate the source level in each mode; in the radio listening, tape playback, recording, using the set as an amplifier, and so on.

PLAYBACK

1) Depress the Stop Button before removing or inserting a cassette tape.
2) Open the Cassette Compartment cover by depressing the Eject Button. Insert the cassette as shown in the figure, and then close the Cassette Compartment.



Note:
Make sure the exposed part of the cassette tape is face down. If it is upside down, the Cassette Compartment cannot be closed.

3) Set the Function Selector to "TAPE".
4) Set the Tape Selector as shown in the table according to the cassette tape used.

●Tape Selector Settings for Various Tapes

Tape Selector position	Tape
METAL	Metal tape
CrO_2	A tape corresponding to CrO_2 type
NORMAL	Ordinary tape

5) Set the Mode Selector to "AMBIENCE", "STEREO", or "MONO".
6) Depress the Playback Button, and playback will begin.
7) Adjust the Volume, Balance, Bass, and Treble Controls.
8) When listening to the playback sound at low volume, set the Loudness Switch to "ON".
9) To stop the playback, depress the Stop Button. At the end of the tape the Playback Button will release and the power will shut off automatically.

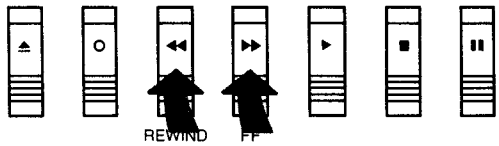
Notes:
- ●Do not depress the Eject Button while the tape is still traveling.
- ●It happens sometimes that when no power is being supplied to the unit, and you first depress the Record or Playback Button and then switch on the power after the Stop Button is depressed, the head section will be activated. This does not, however, mean that something is wrong with the unit.

●Tape Counter and Reset Button

The digits return to "000" when the Reset Button is depressed. The digits advance with the tape to provide a reference to quickly find a desired part of the tape.

■ Fast Forward and Rewind

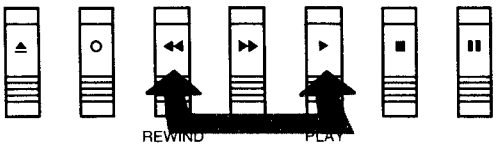
The tape will move rapidly forward when the Fast Forward Button is depressed.
The tape will rewind rapidly when the Rewind Button is depressed.



Note:
Do not depress the Playback Button during fast forward or rewind, as this may jam the tape. Always depress the Stop Button first, between functions.

■ Rewind/Automatic Playback

To repeat playback after recording or playback, first set the Tape Program Sensor Switch to " OFF ", and depress the Playback Button and the Rewind Button at the same time. The unit will rewind to the beginning of the tape, and playback will begin automatically.



Note:
The "Rewind/Automatic Playback" system will not function if the Pause Button is depressed. Because the power to the motor won't be cut off, be sure to release the Pause Button to release the mechanism.

■ Full Auto Stop System

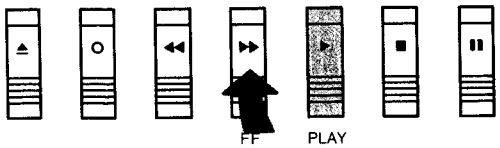
When the tape reaches the end during playback, recording, fast forward or rewind, the automatic stop system will release all the buttons and automaticlly turn the power off.
Note that the power is not turned off if the Function Selector is set to "LINE IN" or "RADIO"; the Function Selector must be set to "POWER OFF".

■ Tape Program Sensor System (TPS)

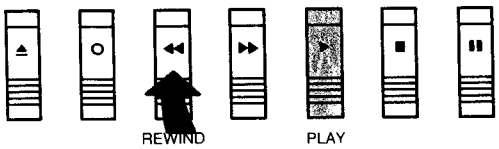
The Tape Program Sensor system can be set to automatically find and playback a predetermined selection on a recorded cassette tape.

Procedure:

1) Follow the same procedure as described in step (1)–(8) of "PLAYBACK".
2) Set the TPS Switch to "ON".
3) Depress the Fast Forward or Rewind Button keeping the Playback Button depressed. TPS Indicator lights up.
   - ●Depress the Fast Forward Button. The tape will advance to the next program and automatically begin to play.



- ●Depress the Rewind Button. The tape will rewind to the beginning of the present program and begin to play.



TPS Intervals

The TPS function will operate with most pre-recorded tapes. For self recorded tapes, follow the procedure below.

1) Set the unit to the recording mode (refer to "RECORDING").
2) Depress and hold the Record Muting Button for 3–5 seconds after a program has been recorded. (No sound will be recorded while depressed, but the LED meter will function.)
3) Depress the Pause Button.
4) Release the Record Muting Button.
5) Depress to release the Pause Button to record again.

In the following instances the Tape Program Sensor system may not operate normally. This does not, however, indicate a failure.

- ●With tapes of conversations having a great many gaps in the dialog.
- ●With tapes having tracks with extremely low sound levels.
- ●With tapes having portions among the tracks where no sound has been recorded.
- ●With tapes having intervals of less than 3 secods long.
- ●With tapes having a high level of noise during the intervals.
- ●When less than 10 seconds separate the program you are listening to and the next program when you want to move on to listen to the next program.

RECORDING

- ●This unit has an Automatic Level Control system (the recording level is automatically adjusted).
- ●This unit has a variable-sound monitor system, which means that the monitor sound can be adjusted using the Volume Control without affecting the recording itself.
- ●This unit comes with a one-touch recording mechanism. This means that when recording you need depress only the Record Button. (In other words, you do not have to depress the Playback Button.)

■ Recording Radio Broadcasts

1) Follow the procedure described in "LISTENING TO THE RADIO".
2) Insert the cassette into the Cassette Compartment.
3) Set the Tape Selector according to the cassette tape used.
4) Depress the Pause Button and then depress the Record Button.
5) Depress to release the Pause Button and the recording will begin.
6) To stop the recording, depress the Stop Button.
7) Set the Function Selector to "POWER OFF" to turn the unit off.

■ Pause Button

The Pause Button can be used to temporarily stop the tape from moving during recording or playback.

Before beginning a recording, first depress and lock the Pause Button. Then, depress the Record Button. (The tape will not move.) When ready to record, depress the Pause Button to release it. This will start the tape movement for immediate recording.

> **Note:**
> Do not use the Pause Button to stop the tape for a long period of time.
> The power is not turned off when the Pause Button is depressed. Always use the Stop Button to turn the power off.

●Beat-Proof switch

When an AM broadcast is recorded, the Beat-Proof Switch can be used to reduce unwanted "beat" signals which were not present before recording. Set the switch to whichever position best reduces these "beat" signals.

■ Recording through the Built-in Microphones

The built-in condenser microphones in this unit are omni-directional (all directions), so that recordings can be made from any direction.

1) Set the Function Selector to "TAPE".
2) Set the Mode Selector to "STEREO" or "MONO".
3) Follow the procedure described in steps (2)–(6) of "Recording Radio Broadcasts".

■ Recording through External Microphones

1) Connect the optional external microphones to the Microphone Jacks. The Built-in Microphones will be automatically disconnected.
2) Follow the procedure described in "Recording through the Built-in Microphones".

Notes:
- Use two microphones which have the same specifications.
- When only one external microphone is used for recording, the sound will be heard only from the channel (left or right) to which the microphone is connected.
  To prevent recording of sounds through the Built-in Microphone for the channel (left or right) to which the external microphone is not connected, connect the erase plug (optional) into the Microphone Jack not being used.

■ Recording from External Equipment (Refer to page 8)

1) Connect the output terminal of the external equipment to the Microphone jacks or Line Input jacks.
2) Set the Function Selector to the position which corresponds to the source.
3) Follow the procedure described in steps (2)–(7) of "Recording Radio Broadcasts".

Notes:
- When recording from a TV, telephone, etc., the sound will be recorded through the Built-in Microphone corresponding to the side to which the connection is not made. To prevent this, connect the erase plug (optional) into the Microphone Jack not being used.
- If the volume level of the TV or other equipment is too loud during recording, the recorded sound will be distorted. Set the volume of the TV or other equipment to the usual listening level.

■ Monitoring

The monitor system enables you to listen, through the Built-in Speakers, headphones, or external speakers, to the sound as it is being recorded. Sound can be monitored in the following ways:
- When recording from the radio, the sound being recorded can be monitored through the Built-in Speakers, headphones, or external speakers.
- When recording from a sound source connected to the Microphone Jacks or Line Input Jacks, the sound being recorded can be monitored through the Built-in Speakers, headphones, or external speakers.
- To prevent feedback (howling) when recording through the Built-in Microphones, the sound being recorded cannot be monitored through the Built-in Speakers, headphones, external speakers.
- When recording through external microphones, use headphones to monitor the sound.
  If it is necessary to adjust the volume level of the sound being monitored, do so by using the Volume Control.

Note:
If external microphones are placed too close to the speakers in this unit, feedback (howling) may be heard. If so, place the microphones as far away from the speakers as possible, or reduce the volume.

■ Erasure of Recordings

When recording, previously recorded signals on the tape will be erased automatically.
To erase a tape without re-recording, use the following procedure. (Make no connections to the Line Input Jacks).
1) Set the Function Selector to "LINE IN".
2) Set the Tape Selector according to the cassette tape used.
3) Depress the Record Button.

TIMER PLAYBACK AND RECORDING

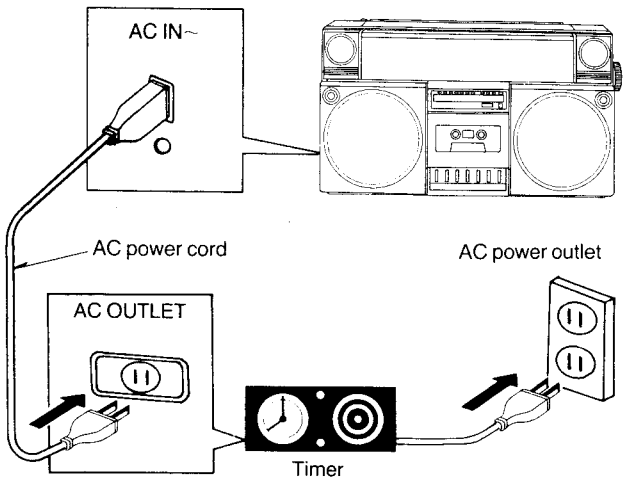
■ Timer Playback

1) Connect as shown in the figure.
2) Set the power switch of the timer to "ON".
3) Follow the same procedure as described in steps (1)–(8) of "PLAYBACK".
4) Depress the Stop Button.
5) Set the timer to the time that the playback is to start.
6) Set the timer switch to "ON". (to switch the power on at the desired time)
7) Depress the Playback Button. The power will be turned on and playback will begin at that preset time.

■ Timer Recording of Radio Broadcasts

1) Connect as shown in the figure.
2) Set the power switch of the timer to "ON".
3) Follow the procedure described in steps (1)–(4) of "Recording Radio Broadcasts".
4) Depress the Stop Button (if the Pause Button is depressed, depress to release it) to release the controls.
5) Set the timer to the time that the recording is to start.
6) Set the timer switch to "ON". (to switch the power on at the desired time)
7) Depress the Record Button. The power will be turned on at the preset time, and recording will begin at that preset time.

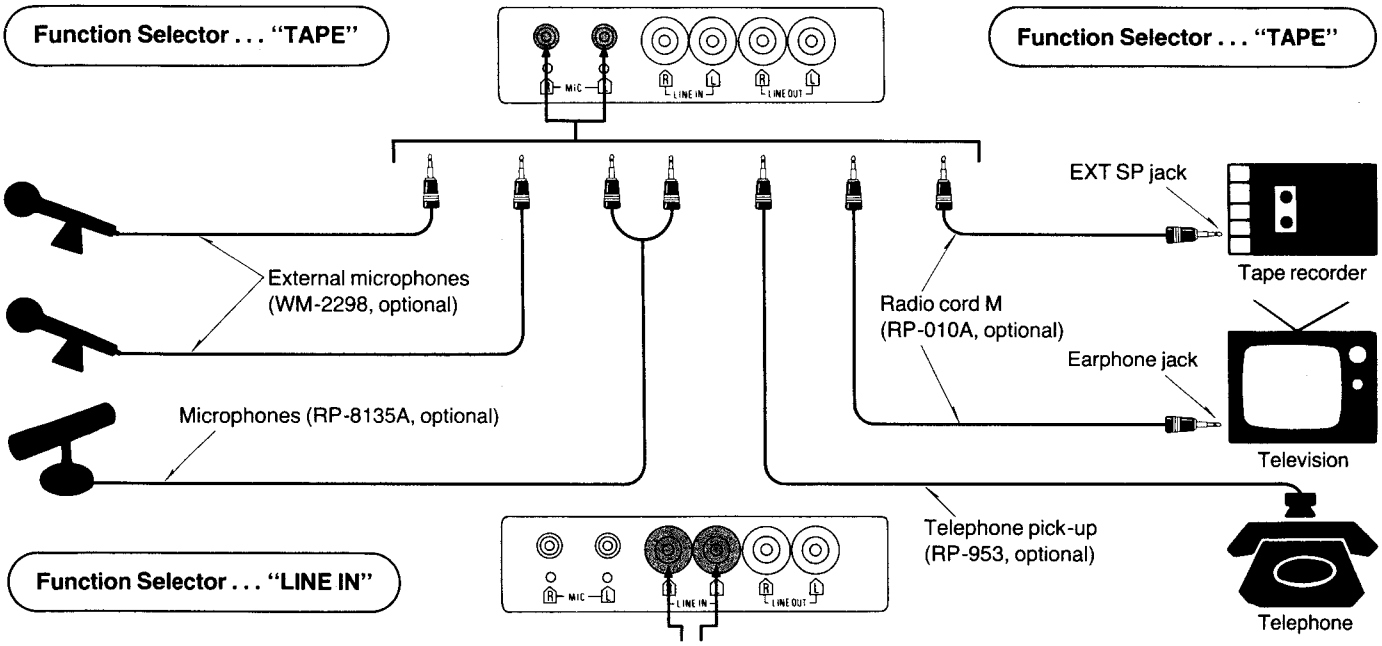
Note:
Set the time on the timer in excess of the tape recording (playback) time so that the power will be switched off after the tape has reached the end, the auto stop mechanism has swung into action and the mechanism is released.

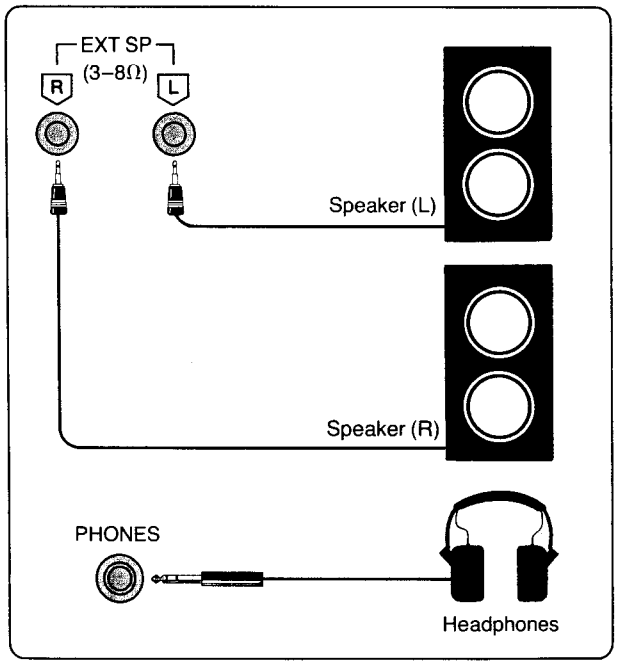


- Refer to the table below for the cassette tape to be used.

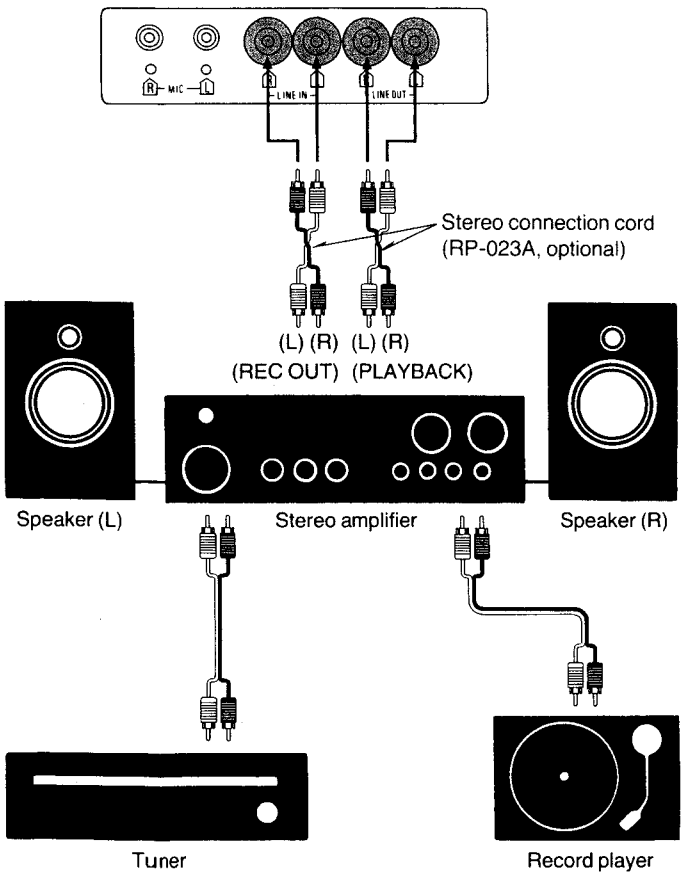
Cassette tape	Time on one side
RT-30 (C-30)	15 minutes
RT-60 (C-60)	30 minutes
RT-90 (C-90)	45 minutes

CONNECTIONS





■ Using the Set as a Stereo Cassette Deck
Function Selector . . . "LINE" (for recording)
"TAPE" (for playback)



Notes:
- Some audio material is copyrighted. Recordings of such material must be limited to personal use.
- It is illegal to record telephone conversations unless all persons being recorded are advised beforehand.

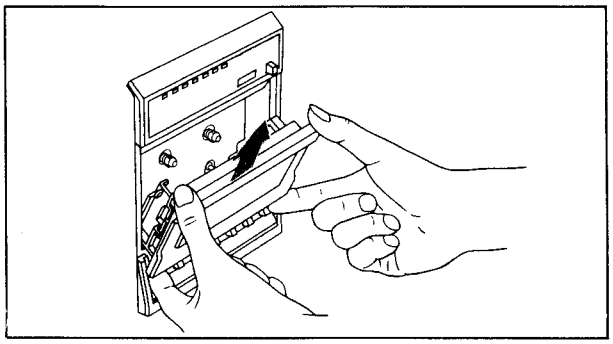
■ Using the Set as an Amplifier

1) Connect the equipment to be amplified to the Line Input Jacks.
2) Set the Function Selector to "LINE IN".
3) Adjust the Volume, Balance, Bass, and Treble controls.
4) To turn the power off, set the Function Selector to "POWER OFF".

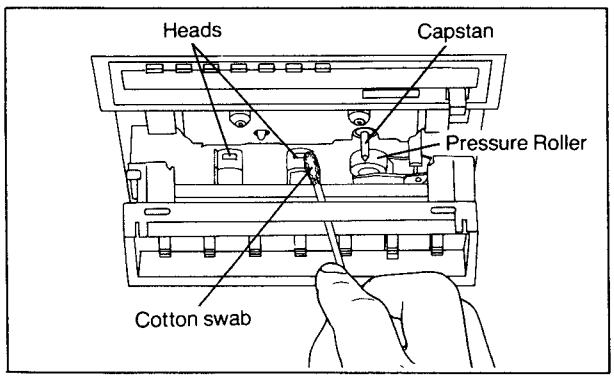
MAINTENANCE

The head assembly, capstan, and pressure roller are in constant contact with the tape. If these parts are dirty, the sound quality will be impaired. Get into the habit of cleaning the parts regularly (after every 10 hours or so of use) in accordance with the procedure outlined below.

1) Depress the Stop Button.
2) Open the Cassette Compartment cover by depressing the Eject Button.
3) Lift up the cassette lid and remove it from the cassette holder in order to facilitate head section cleaning.

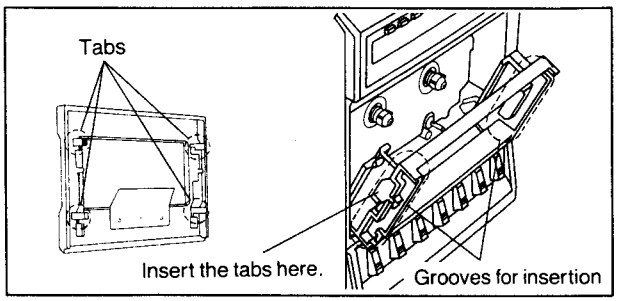


4) Depress the Playback Button.
   The Recording/Playback Head, Erase Head, Capstan and the Pressure Roller can be seen. Clean them with a cotton swab, or a piece of wood with a soft cloth wound around it.



●Attaching the cassette lid

To attach the cassette lid, slide the "tabs" on the lid into the grooves at the top and bottom inside the cassette holder.
Once the cassette lid is pushed into position, it will make a clicking noise and it will stop.



Notes:

- If the heads are extremely dirty, clean them with a soft cloth dampened with a little alcohol.
- Do not bring metal articles or magnetic material, such as a screwdriver, near the head assembly.
- Do not clean the plastic cabinet with benzine or thinner. Clean it with a solution of soap and water.

SUGGESTIONS FOR SAFETY

Before using this unit, be sure to read applicable items of the operating instructions and these safety suggestions carefully; and afterwards keep them handy for future reference. Take special care to follow the warnings indicated on the unit itself as well as in the operating instructions.

1. **Avoid places where there is water or humidity.**
   Do not use this unit near a bathtub, washbasin, swimming pool, or the like. Damp basements should also be avoided.

2. **Don't allow water or any foreign object to get inside this unit.**
   Don't place small metal objects or anything containing liquid on or near the unit.

3. **Avoid placement of the unit where it will be exposed to the direct rays of the sun, or where ventilation is inadequate.**
   Don't place this unit in a bookcase or between cabinets, or where curtains or furniture may obstruct the ventilation holes.

4. **Place this unit away from heat-emitting appliances.**
   Never place this unit near a radiator, heat register, stove, or any other heat-emitting equipment. (Including Amplifiers).

5. **Placement**
   Place the unit on a stable, vibration-free, level shelf or stand.

6. **Check the voltage rating of this unit before connecting the unit to a power supply.**
   Be sure to connect the unit only to the type of power supply indicated in the operating instructions, or as indicated on the unit itself.

7. **Care of the power cord and plug.**
   Take care that the cord is not bent sharply (especially near its connection to the unit or near the plug), that nothing is placed on it, and that it is not pinched or crushed. Never take hold of the plug or cord if your hand is wet, and always be sure to grasp the plug body when connecting or disconnecting it.

8. **If the unit will not be used for a long period of time:**
   Be sure to disconnect the power cord.

9. **Maintenance**
   Refer to the operating instructions for details.

10. **Never attempt repairs yourself:**
    (a) If the power cord or plug is damaged.
    (b) If a foreign object or liquid falls into the unit.
    (c) If the unit is exposed to rain.
    (d) If the unit does not function normally, or if operation shows an unusual change.
    (e) If the unit has been dropped and the cabinet or chassis are damaged . . . etc.
    Unplug the power cord and consult with a qualified technician (or the dealer from whom the unit was purchased or the nearest service center).

11. **Repairs**
    Except for adjustments explained in the operating instructions, do not attempt any repairs yourself. Be sure to request service from a qualified technician (or your dealer or nearest service center).

PRODUCT SERVICE

Should your Panasonic product ever require service, refer to enclosed Directory for an Authorized Panasonic Servicenter or consult your authorized Panasonic dealer for detailed instructions.
SERIAL NUMBER: Located on the label affixed to the inside of the battery compartment.